

## REMARKS

Claims 1-22 are pending in this application. By this Amendment claims 1 and 2 are amended.

It is noted that the claim amendment is made only for more particularly pointing out the invention, and not for distinguishing the invention over the prior art, narrowing the claims or for any statutory requirements of patentability. Further, Applicants specifically state that no amendment to any claim herein should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

With respect to the prior art rejections, claims 1-22 stand rejected upon informalities (e.g., 35 U.S.C. §112, second paragraph).

The rejection is respectfully traversed in the following discussion.

### I. THE CLAIMED INVENTION

The invention of claim 1, for example, is directed to a light-emitting semiconductor device which is formed by laminating plural layers of group III nitride compound semiconductor that includes an active layer having single layer structure of a semiconductor layer at least including indium (In). A composition ratio a of In is the ratio of atoms to whole number of atoms of type III or the molar fraction to atoms of the type III atoms, has a smooth variation In concentration, and is in a range of 0.0001 to 0.05. The composition ratio a is varied at a constant period L in waveform in a direction of the z axis which is parallel to the growth axis of said active layer, and the period L is arranged to be an approximately constant value selected from a range of 1nm to 10nm (Application at page 3, line 24-page 4, line 6).

The structure of the invention is important because by using an active layer comprising the proper amounts of In, a semiconductor laser may be formed that has a lower threshold voltage and can be manufactured at a reduced cost (Application at page 11, lines 3-9)

Conventional surface emitting type semiconductor lasers, as described in the Background section of the present application, comprise an active layer having an MQW structure in an effort to increase gain. However, use of an MQW structure is not always desirable due to difficulties in designing the active layer, insufficient productivity and the high cost of the materials (Application at page 1, line 16-page 3, line 19).

In contrast, this invention provides an active layer having a high gain that can be manufactured at a reduced cost (Application at page 8, lines 17-23).

## **II. THE 35 U.S.C. §112 REJECTION**

In rejecting claims 1-22, the Examiner alleges that the rejected claims are “indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.”

Specifically, it is alleged that the composition ratio of In, as recited in independent claims 1 and 2, is not clear. The claims are amended in response to the rejection.

With respect to claim 5, the Examiner is correct in her understanding that the composition ratio of In has a smooth variation in the In concentration.

Accordingly, withdrawal of the rejection of claims 1-22 is respectfully requested.

## **III. CONCLUSION**

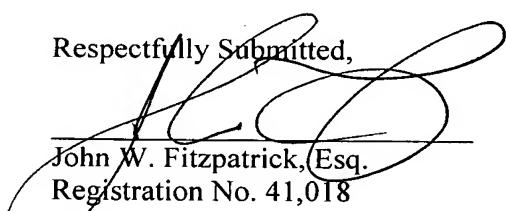
In view of the foregoing, Applicants submits that claims 1-22, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

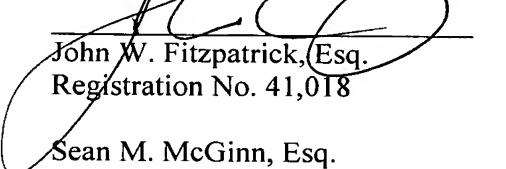
Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

Date: 4/3/07

Respectfully Submitted,

  
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